REMARKS

Reconsideration of the pending application is respectfully requested. Claims 1, 4-17, and 31-34 remain pending in the present application.

35 U.S.C. §112 Rejections

The Examiner has rejected claims 1, 4-17, and 31-34 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, Examiner alleges that since the specification only provides that the smoking material comprises a tobacco content of up to 20% that this specification does not support the claimed range limitation of 5 to 20%.

The Claims have been amended to include the limitation that the smoking material comprises a tobacco content of up to 20%. Applicant's Attorney respectfully requests that the Examiner withdraw this rejection.

35 U.S.C. 103 Rejections

The Examiner has rejected Claims 1, 4-17, and 31-34 under 35 U.S.C. 103(a) as being unpatentable over Gibson et. al. (US Pat. 3878850).

The present invention claims a smoking material not less than 30% by weight of inorganic filler, i.e. $CaCO_3$. Each of the claims rejected has the limitation of having an inorganic filler present at greater than 30% by weight. $CaCO_3$ or chalk, as commonly referred to as in the industry, is a base composition that increases the pH of the smoking article and consequently inhibits the effect an acid will have on decreasing the pH of the smoke.

The Gibson reference teaches a smoking mixture comprising a smoking substrate fortified with nicotine being blended with a substance producing acidic matter in the smoke to counteract chokiness. Gibson, col. 1, lns. 17-23.

MPEP § 2143.01 states "if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997)

After review of the rejection, it is apparent that Gibson materially teaches away from the presently claimed invention. Considering Gibson in its entirety shows that the goal in Gibson is to make the smoke more acidic. Gibson states this goal as follows; "... we have now come to associate a choky flavor effect when nicotine is added to smoking substrates with an alkaline trend in the pH of the smoke therefrom and we have discovered that if this choky smoke is rendered more acid a decrease or disappearance of the choky effect is observed." Gibson, col. 1, lns. 17-23. Gibson teaches a high ratio of acid to base in the smoking article to reduce chokiness by decreasing the pH of the smoke. Thus, having a high acid to base ratio is a material aspect of the teachings in Gibson.

Gibson, taken in its entirety, teaches having a high acid to base ratio in the smoking article and that this ratio is material in achieving the goal in Gibson. It is known in the art that chalk or $CaCO_3$ is a base and will counteract the effect of adding an acidic material. It is also known that a concentration of approximately 15% $CaCO_3$ has become a norm in the tobacco industry. In order to achieve the goal of making the smoke more acidic, Gibson adds a variety of acids to the smoking article without increasing the $CaCO_3$ content above the industrial norm. This teaching is shown in the three embodiments discussed in Gibson. Each of embodiments involves the addition of an acidic material into the smoking article without exceeding the normal $CaCO_3$ content so that the pH of the smoke is decreased. Gibson, Col. 2, lns. 1-24. Thus Gibson teaches adding an acidic material to the smoking article while not increasing the $CaCO_3$ content of the smoking article above the norm is material in achieving the goal in Gibson.

Gibson teaches that the addition of an acid will decrease the pH of the smoke while the addition of a base, $CaCO_3$, will increase the pH of the smoke. Listed below are the percentages of $CaCO_3$, and acids added to the material in each of the Examples in Gibson.

Example #	% CaCO3 (base)	% Glycerol	% lactic acid	% glycerol triacetate	% malic acid	% maleic acid	% fructose	% Algenic acid	% formic acid
1	15.6	8.6							
2	13.7	8.5	5						
3	14.6	8.6	5						
4	15	8.5		5					
5	14.6	8.5							
6	15.4	5.6			4.6				
7	15.1	5.5				4.5			

8	10.1	5.9					3.4		
9	17.3	6.1	5					24.2	
10	14.5	8.6							5

Average $CaCO_3$ content	14.6
Average acid content	13.6
Acid to base ratio	.93

These percentages were calculated by dividing the parts of the listed base or acid by the total of the parts of all of the additives except water. For example, the $CaCO_3$ content in Gibson Example 4 was calculated as follows:

$$2.92/(5.1+1.7+1+1+2.92+.95+2.3+5)=.15=15\%\ CaCO_3$$

The Examples in Gibson clearly show that the teaching of Gibson is to increase the ratio of the acid to base content of the smoking article thus making the smoke more acidic or having a lower pH. The content of $CaCO_3$ is critical in that the more that is added the lower the acid to base ratio becomes and the higher the pH of the smoke becomes. Thus, having a high $CaCO_3$ content would be contrary to the goal in Gibson. col. 1, lns. 17-23. The effect on the pH of the smoke by having a higher $CaCO_3$ concentration in the smoking article is shown by comparing Examples 2 and 4 in Gibson. The mixture in Example 2 has an acid to base ratio of .99 while the acid to base ratio in Example 4 is .9. The pH of the particulate phase of the smoke in Example 2 was found to be 6.1 while the pH of the particulate phase in Example 4 was found to be 6.16. Therefore, Gibson teaches that a lower amount of $CaCO_3$ in the mixture is critical and material in reaching the goal in Gibson of decreasing chokiness by decreasing the pH of the smoke. This

teaching is exemplified in the Gibson Examples by having an average $CaCO_3$ of less than 15%, the norm in the industry.

In contrast to Gibson, The instant invention claims a smoking material not less than 30% by weight of inorganic filler, i.e. $CaCO_3$. This goes directly against the teaching in Gibson. Gibson teaches away from having a higher $CaCO_3$ content since this increases the pH of the smoke which is in direct contrast to the goal of decreasing the pH of the smoke. Gibson teaches a high acid to base ratio while the present invention claims a low acid to base ratio. The Examples in the instant invention are listed below.

Example #	% $CaCO_3$	% Glycerol	% lactic acid	% glycerol triacetate	% triethylene glycol diacetate
1	48.3	6.5			2.6
2	51	6			6
3	78	4			10
4.1		8.6			
4.2		0		9.6	
4.3		4		4	
Tbl 3.2a	39	6			6
Tbl 3.3a	35	6			6
Tbl 3.5a	37	6			20
Tbl 3.7a	51	6		6	
Tbl 3.8a	37	6		20	
Tbl 3.10a	51				12
Tbl 3.11a	56				10
Tbl 3.12a	41	6			6
Tbl 3.16a	45	6			6
Tbl 3.17a	45	6			6
Tbl 3.26a	36	6			6
Tbl 3.34a	45	6			6
Tbl 3.39a	55			13	

Tbl 3.41a		6			6
Tbl 3.42a	26	6			6
Tbl 3.51a	30	6			6
Tbl 3.52a	55				
Tbl 3.58a	51	6			6

Average CaC O_3 content 38.01
Average acid content 12.2
Acid to base ratio .32

As can be seen in these Examples, the acid to base ratio of the present invention is approximately one third the acid to base ratio taught in Gibson. The present invention contains, on the average, $CaCO_3$ in excess of two and a half times the $CaCO_3$ content taught in Gibson. This difference is material and goes directly against the teachings in Gibson. The present invention claims a $CaCO_3$ that is double the norm in the industry and more than double the content taught in Gibson. Since Gibson teaches having a low $CaCO_3$ content and that this content is material and the present invention claims a high $CaCO_3$ content, the present invention is unobvious and contrary to the teachings of this cited reference.

Each of the Claims rejected contain the limitation of having an inorganic filler not less than 30% by weight. Since Gibson teaches away from this limitation and the limitation goes directly against the teachings of the cited prior art, Applicant's Attorney respectfully requests the Examiner remove said rejection.

Conclusion

Applicant's Attorney asserts that the instant application is in condition for allowance. Applicant's Attorney therefore respectfully requests that the Examiner allow the pending claims. However, if the Examiner believes there are other unresolved issues in this case, Applicant's Attorney of record would appreciate a call at (502) 584-1135.

Respectfully submitted,

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